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BLACK BOX® NETWORK SERVICES

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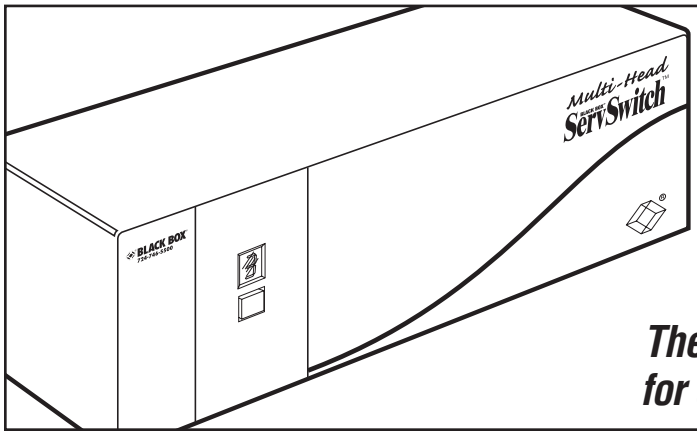
MULTI-HEAD SERVSWITCH™



The first ServSwitch designed specifically for computers with multiple video outputs.

Key Features

- ***Control multiple CPUs with two to four video outputs from a single keyboard, mouse, and set of monitors.***
- ***Compatible with many types of keyboards, mice, and video.***
- ***Supports resolutions up to 1600 x 1280 at refresh rates up to 100 Hz.***
- ***Also supports DDC.***
- ***Interface-powered.***
- ***Can be synchronized for CPUs with as many as eight video outputs.***
- ***Switch channels in any of five ways, or autoscan channels.***
- ***Password security.***
- ***Flash-upgradeable.***

Those of you with multithreaded, multitasking IBM® PC compatible computers that have multiple independent video heads have often been left partially in the dark when it comes to keyboard/video/mouse (KVM) switching. Most KVM switches are made for regular computers with one video head; to handle the "extra" video lines from computers like yours, you'd need to stack a video-only switch on top of that kind of KVM switch, or do something equally inelegant.

Just for you, we offer the Multi-Head ServSwitch™. It has multiple inputs for video from multi-head computer CPUs and outputs for multiple monitors. The models we currently stock include:

- The 2-Port Dual Video switch (SW614A) handles two CPUs with one or two video outputs.
- The 2-Port Quad Video switch (SW616A) handles two CPUs with up to four video outputs.
- The 4-Port Dual Video switch (SW617A) handles as many as four CPUs with one or two video outputs.
- The 4-Port Quad Video switch (SW619A) handles as many as four CPUs with up to four video outputs.

The flexibility of the Multi-Head ServSwitch doesn't end there. It supports all kinds of VGA and XGA compatible video at resolutions up to 1600 x 1280 and at refresh rates (frequencies) up to 100 Hz. It also passes through VESA DDC signaling, so your CPUs and your high-end monitors can communicate with each other as if they were directly attached.

The Multi-Head ServSwitch has sophisticated keyboard and mouse support as well. Keyboards can be PS/2 or (with an adapter) PC/AT type, using keyboard mode 1, 2, or 3. Mice can be two- or three-button or wheel type, using prompt or stream mode.

The only thing that comes with the Multi-Head ServSwitch is its manual, because in most environments it doesn't need a power supply. It draws enough power from the keyboard ports of the attached computers to operate in all but the most demanding applications. If it turns out that you do need a power supply, order product code PS649.

You can protect the Multi-Head ServSwitch and its attached computers from unauthorized access by setting a password for it. This and many other functions, including autoscanning and a screen-saver feature, can be set and controlled using the Switch's configuration mode and keyboard commands.

You can switch CPU channels on the Multi-Head ServSwitch with its front-panel pushbutton, using the keyboard or mouse, or using a Remote-Control Module (KV6REM series) or other serial device attached to its OPTIONS port. You'll also be able to use this port to flash-upgrade the Switch's firmware using a special serial cable (KV6SER).

If you need to switch between computers with up to eight video heads, you can synchronize two Quad Video switches so that they act as a single Eight Video switch. You'd do this by running a special DB15 cable between their OPTIONS ports (call for a quote).

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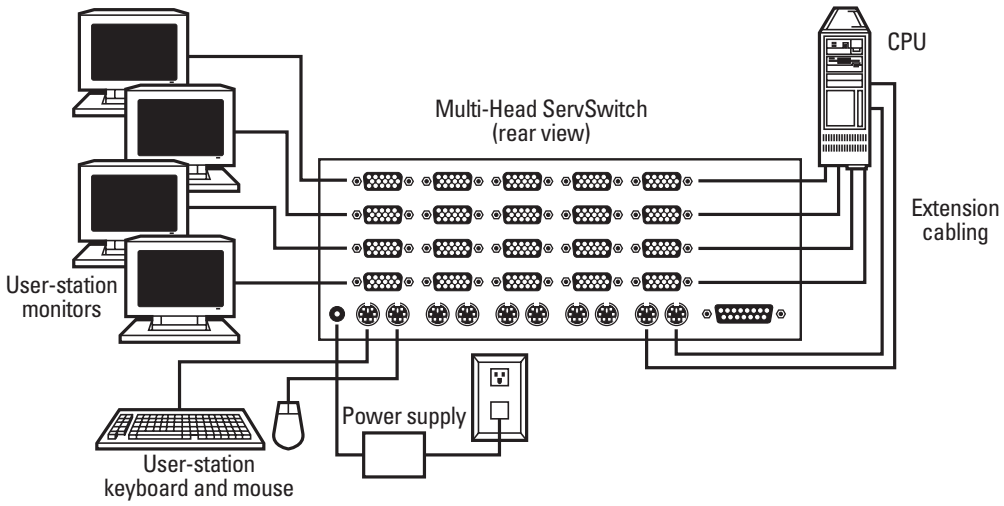
Here's how simple it can be to attach equipment to the Multi-Head ServSwitch™.



NOTE: For clarity, only one CPU is shown. Also, though separate extension cables are shown here, we recommend that you use our special Premium KVM CPU Cable (EHN408) to connect your CPU's first video port and its keyboard and mouse ports to the Switch. This cable has a central video strand with keyboard and mouse strands bonded to either side.

Specifications

Compliance: CE (EN55022 Class B), FCC Part 15 Subpart J Class A, IC Class/classe A

Standards: VGA, SVGA, XGA, XGA-2, SXGA, or UXGA video; supports VESA DDC, DDC1, and DDC2 signaling

Interfaces:
- Video: VGA;
- Keyboard and mouse: IBM PS/2 compatible; with appropriate adapters, also supports IBM PC/AT keyboards, CPUs with PC/AT keyboard ports, and CPUs with EIA/TIA RS-232 mouse ports
- OPTIONS port: EIA/TIA RS-232 proprietarily pinned on DB15

Resolution: Up to 1600 x 1280 noninterlaced at up to 100 Hz

RS-232 Characteristics of OPTIONS Port:
- Protocol: Asynchronous;
- Data format: 8 data bits, no parity, 1 stop bit;
- Data rate: 1200 bps;
- Flow control: None

Maximum Distance:
- 10 m (32 ft.) to any attached keyboard, mouse, or monitor;
- 30 m (100 ft.) to any attached CPU

User Controls:
- Keyboard commands;
- Mouse-click functions;
- (1) Front-mounted pushbutton for channel change and configuration mode;
- (1) Bottom-mounted 8-position DIP switch for reset and firmware upgrade;
- Channels can also be changed through OPTIONS port with optional Remote-Control Module or other serial device

Indicator: (1) Front-mounted 7-segment status display

Connectors: All rear-mounted;
- (1) Multipurpose DB15 female OPTIONS port;
- (1) Barrel jack for optional power-supply connection;
- User port consisting of:
  - (2) 6-pin mini-DIN female for keyboard and mouse attachment;
  - SW614A, SW617A: (2) HD15 female for monitor attachment;
  - SW616A, SW619A: (4) HD15 female for monitor attachment;

Connectors (continued):
- Computer ports ([2] on SW614A and SW616A; [4] on SW617A and SW619A), each consisting of:
  - (2) 6-pin mini-DIN female for keyboard-port and mouse-port attachment;
  - SW614A, SW617A: (2) HD15 female for video-port attachment;
  - SW616A, SW619A: (4) HD15 female for video-port attachment

MTBF: 500,000 hours (based on the historical reliability of similarly designed and manufactured products)

Maximum Altitude: 10,000 ft. (3048 m)

Temperature Tolerance: 32 to 104˚F (0 to 40˚C)

Humidity Tolerance: 5 to 60% noncondensing

Enclosure: Steel, aluminum, and plastic

Power:
- Either:
  - 5 VDC at up to 500 mA from the keyboard interfaces of the attached computers, or
  - From the optional power supply PS649 (not included):
    - Input: 100 to 240 VAC at 50 to 60 Hz from utility-power (mains) outlet, through detachable power cord and IEC 320 male inlet, to external transformer;
    - Output: 5 VDC at up to 1 A;
- Consumption: 5 watts maximum

Size: 4.1"H x 10.3"W x 5.9"D (10.4 x 26.2 x 15 cm)

Weight: 5.5 lb. (2.5 kg)

Ordering Information

ITEM	CODE
Multi-Head ServSwitch™	
2-Port Dual Video	SW614A
2-Port Quad Video	SW616A
4-Port Dual Video	SW617A
4-Port Quad Video	SW619A
You will also need…	
Premium KVM CPU Cable (to each of the CPUs' first video port and to its keyboard and mouse ports)	
5 ft. (1.5 m)	EHN408-0005
10 ft. (3 m)	EHN408-0010
20 ft. (6.1 m)	EHN408-0020
30 ft. (9.1 m)	EHN408-0030
50 ft. (15.2 m)	EHN408-0050
VGA Extension Cable (to each of the CPUs' video ports after the first—specify length)	EVNPS05-MM
PS/2 Extension Cable (to each of the CPUs keyboard and mouse ports if you don't use Premium KVM CPU Cable—specify length)	EVNPS03-MM
You might need…	
Premium KVM User Cable (to extend distance to keyboard, mouse, and first monitor)	
10 ft. (3 m)	EHN409-0010
20 ft. (6.1 m)	EHN409-0020
30 ft. (9.1 m)	EHN409-0030
VGA Extension Cable (to extend distance to each monitor after the first—specify length)	EVNPS05-MF
PS/2 Extension Cable (to extend distance to the keyboard and mouse if you don't use Premium KVM User Cable—specify length)	EVNPS03-MF
Adapter for connecting the keyboard port of a PC/AT type CPU (use with CPU Cable)	FA212
Adapter for connecting the serial mouse port of a PC/AT type CPU (use with CPU Cable)	FA314
Adapter for connecting a PC/AT keyboard	FA211
Remote-Control Module	
With 10-ft. (3-m) cable	KV6REM
With 25-ft. (7.6-m) cable	KV6REM-25
With 50-ft. (15.2-m) cable	KV6REM-50
With 75-ft. (22.9-m) cable	KV6REM-75
Serial firmware-upgrade cable (DB9 female to DB15 male)	KV6SER
Optional power supply (100 to 240 VAC input, 5 VDC/1 A output)	PS649

Call Black Box Tech Support for help determining your best options for AC-power and data-line protection.

Black Box offers the best warranty program in the industry—Fido Protection®. For more information, request **FaxBack 22512**.